

1 / 12

FIG. 1

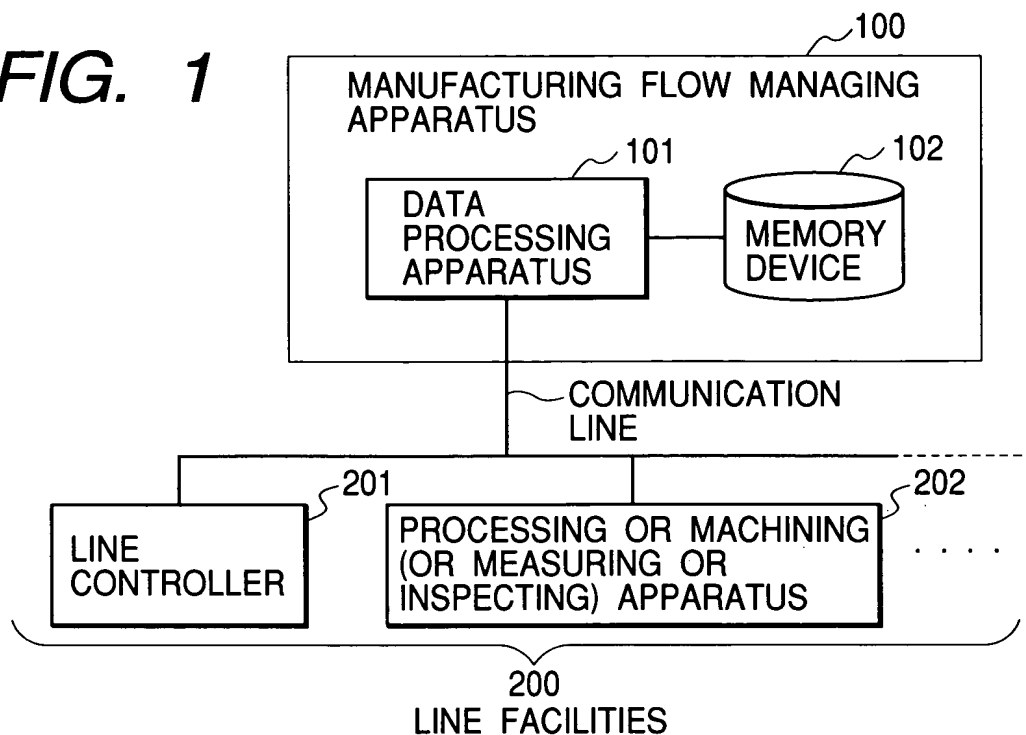
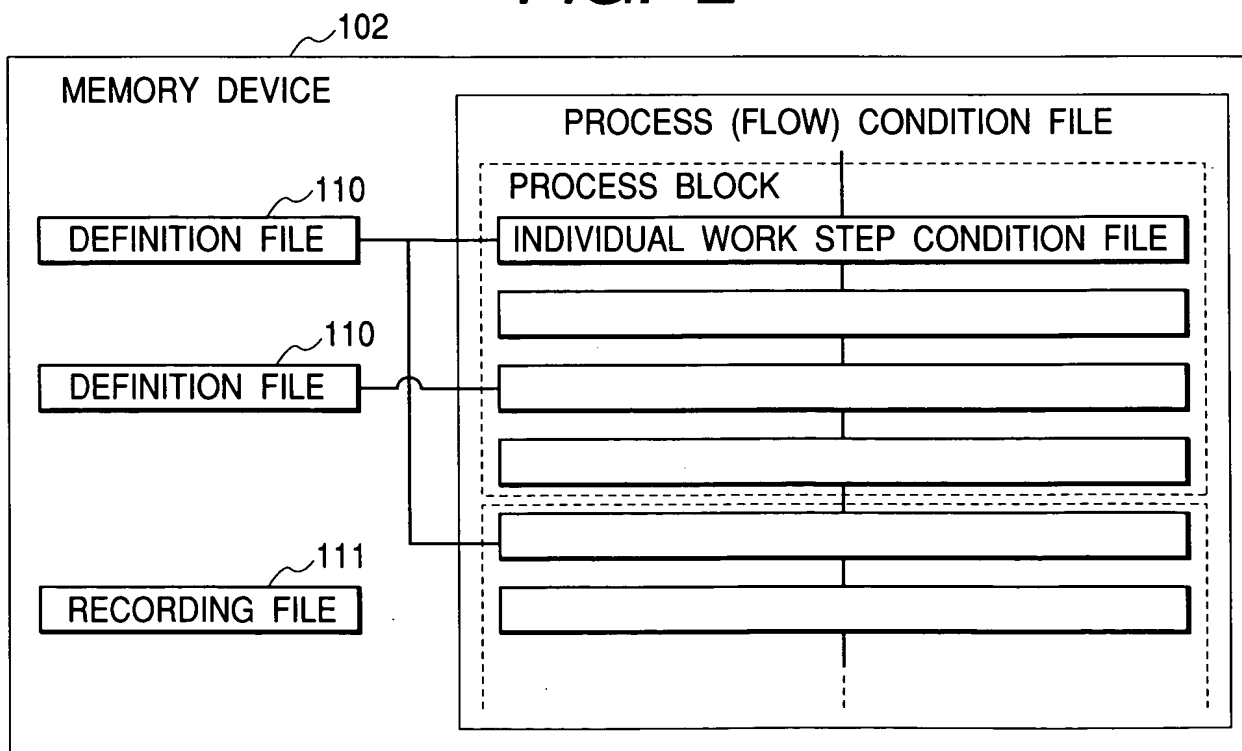


FIG. 2



2 / 12

FIG. 3

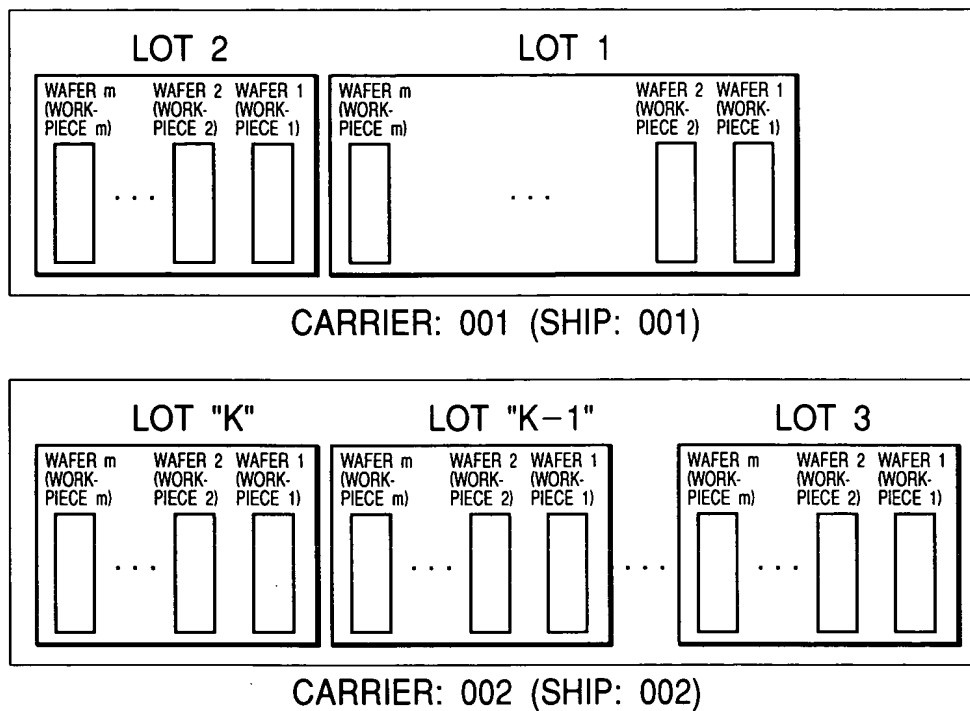
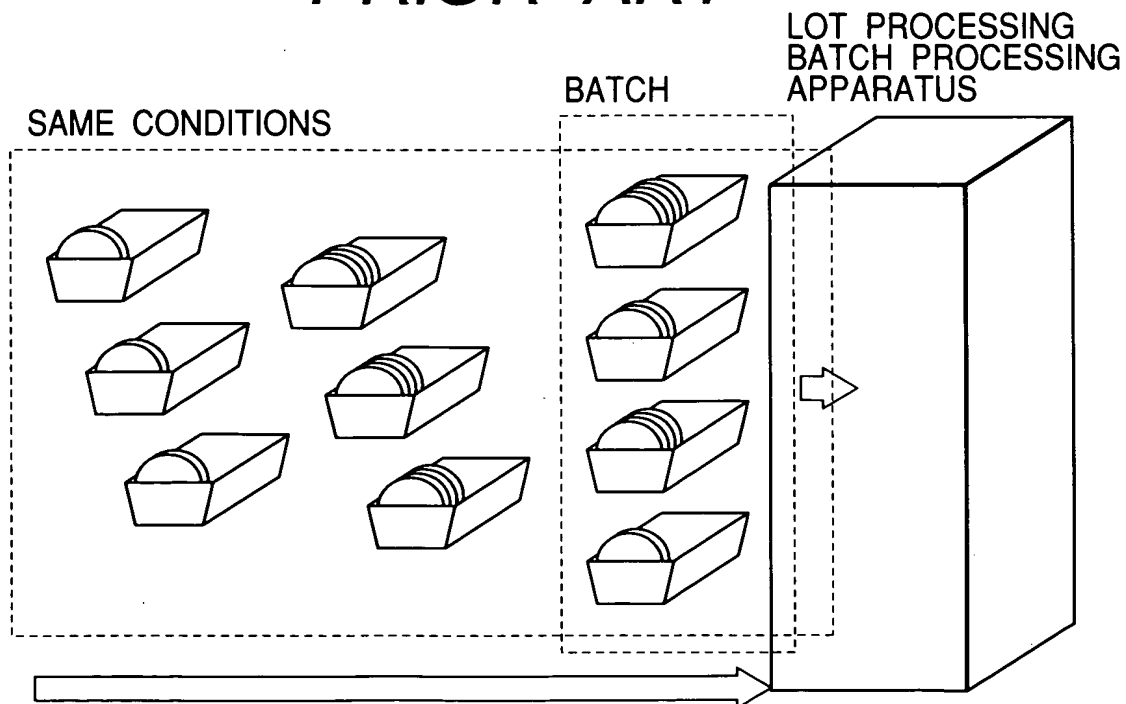
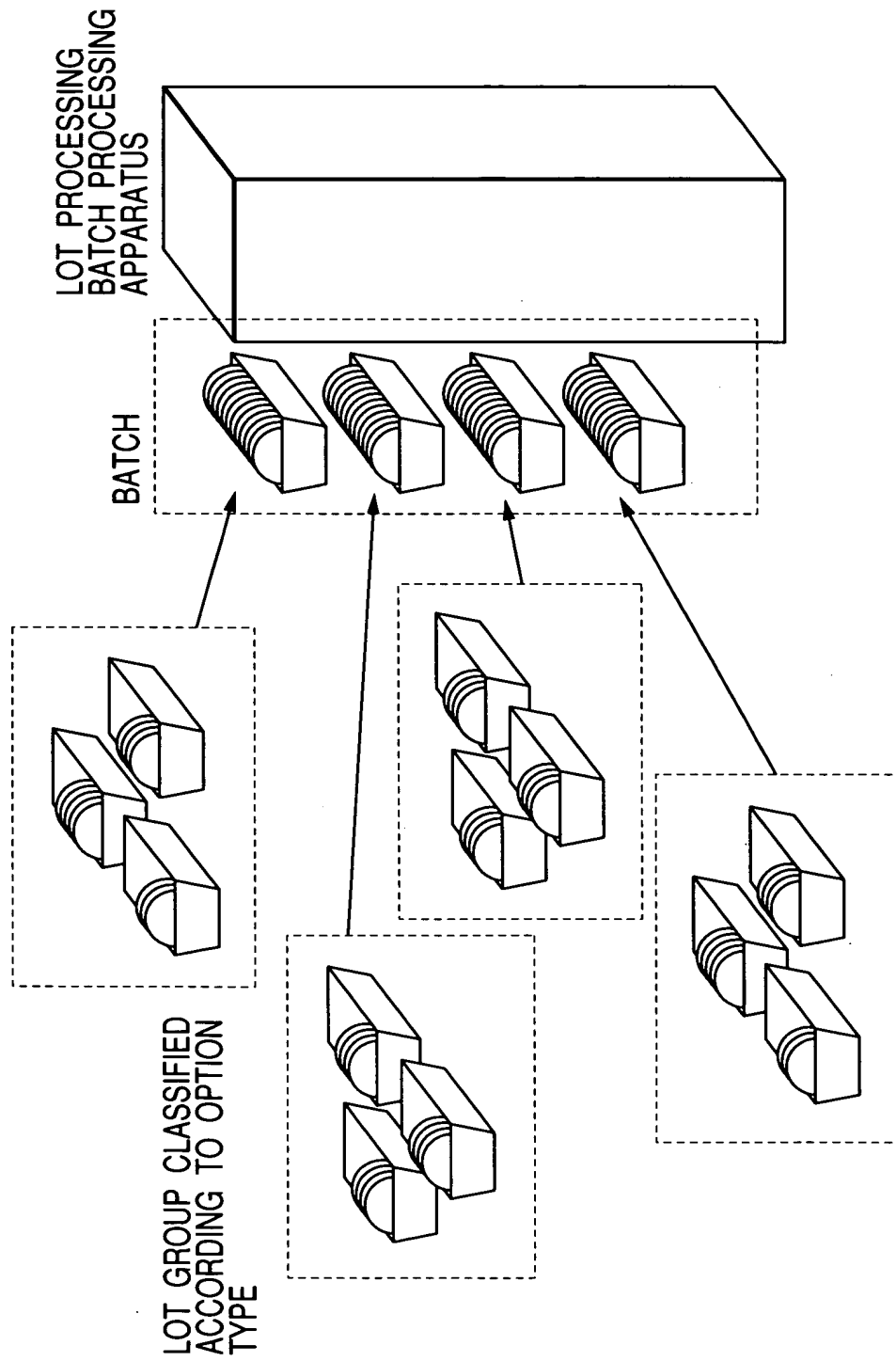


FIG. 4
PRIOR ART



3 / 12

FIG. 5



4 / 12

FIG. 6
PRIOR ART

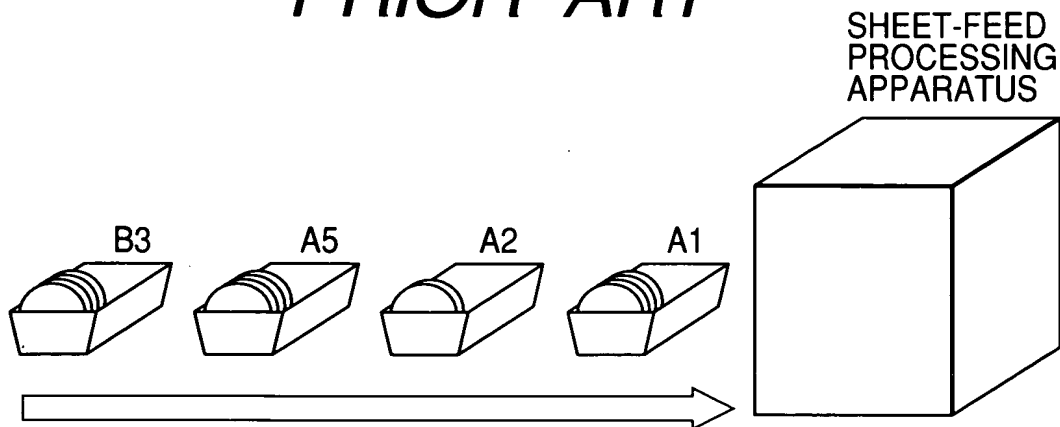
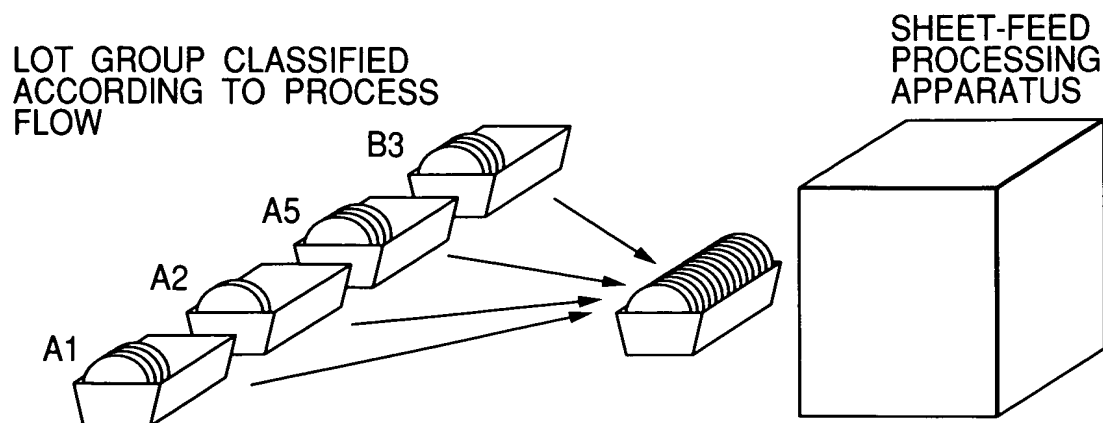


FIG. 7



5 / 12

FIG. 8

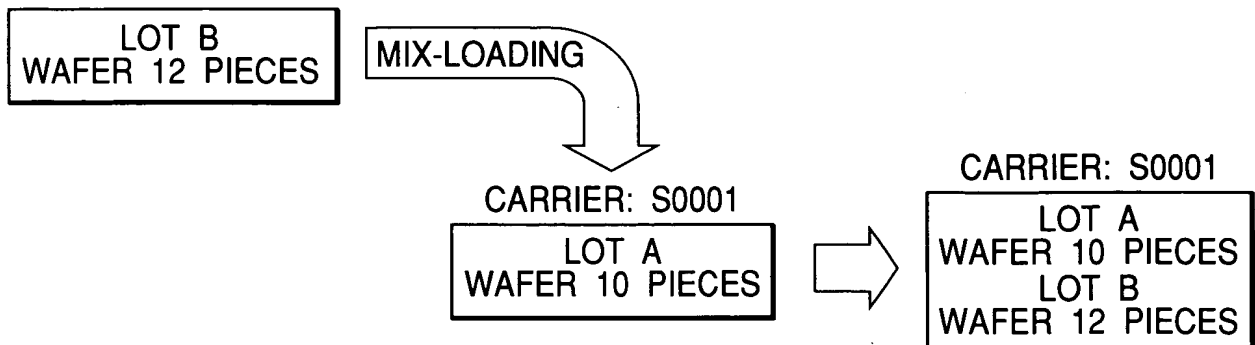


FIG. 9

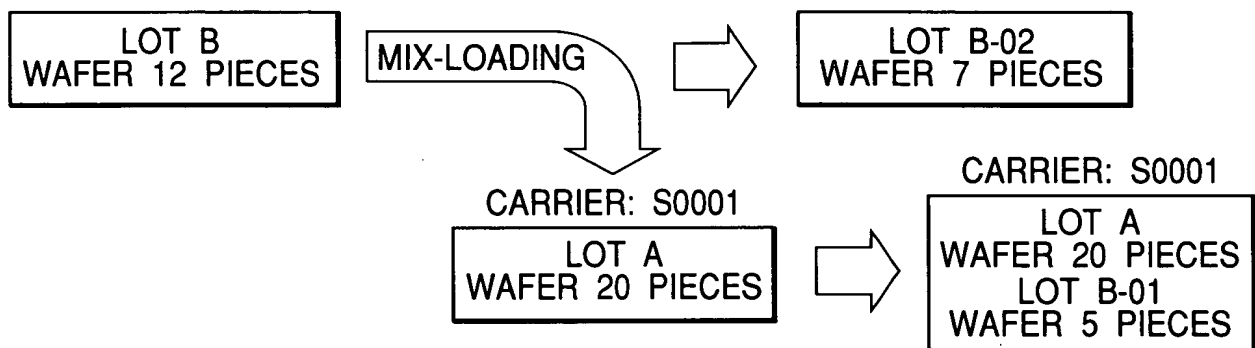
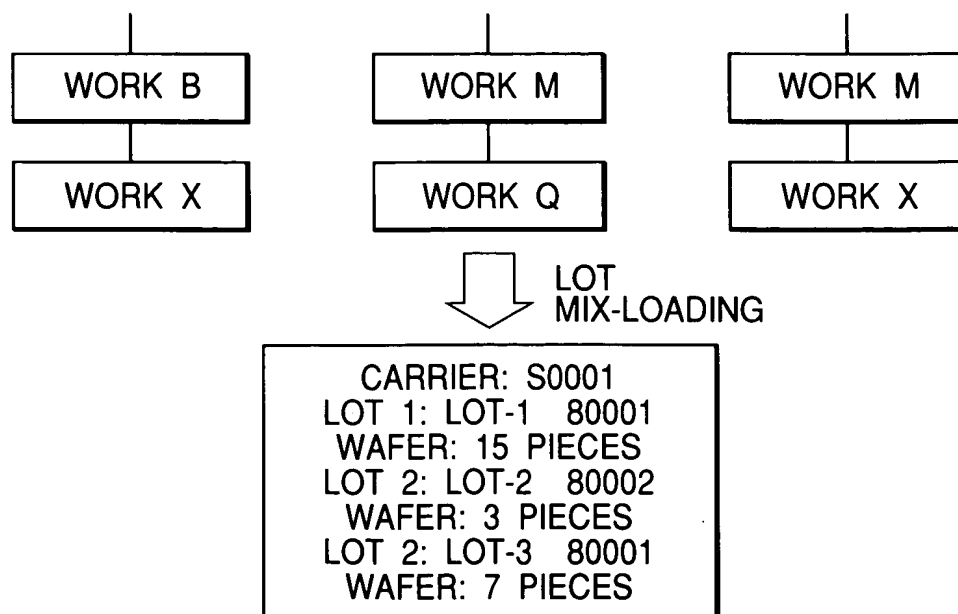
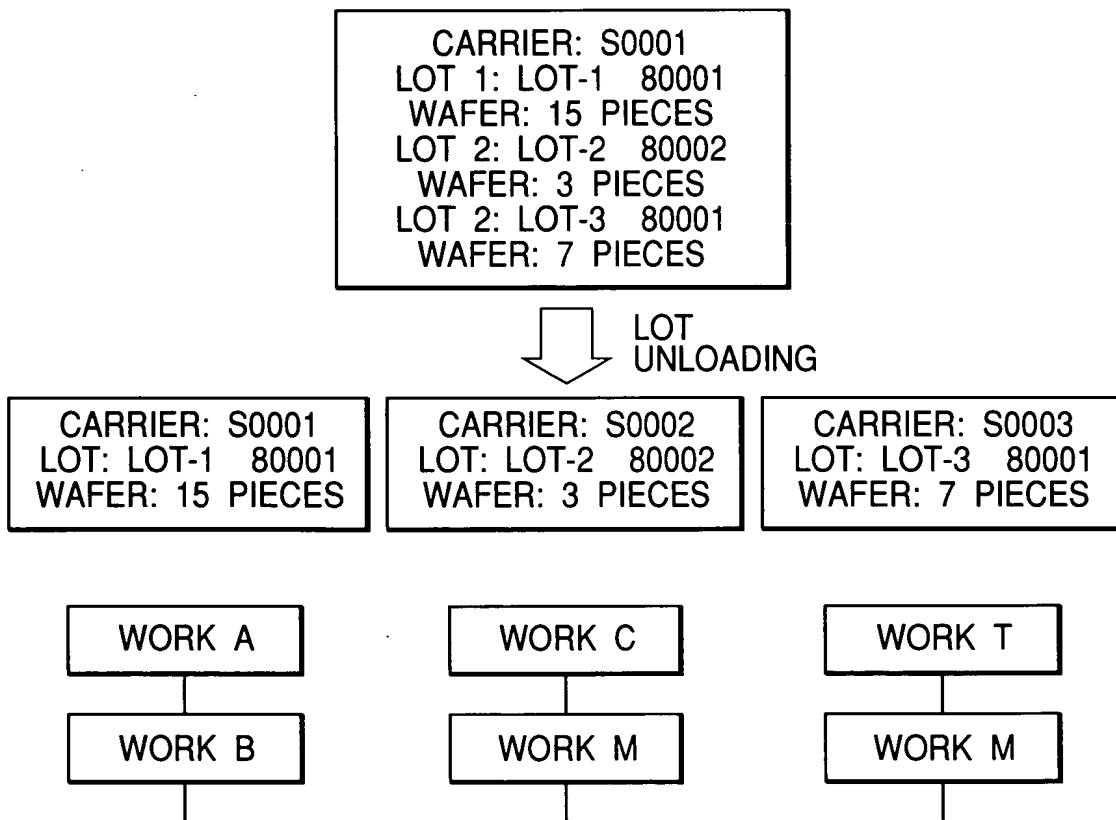


FIG. 10



6 / 12

FIG. 11



7 / 12

FIG. 12

OPTIONAL INTERMEDIATE
INVENTORY

LOT ARRANGEMENT

PHOTOLITHOGRAPHY

FITTING ACCURACY
LINE WIDTH MEASUREMENT
APPEARANCE INSPECTION

MIX-LOADING

ION IMPLANTATION
RESIST REMOVAL
...

PHOTOLITHOGRAPHY
FITTING ACCURACY
LINE WIDTH MEASUREMENT
...

LOT SEPARATION
ACCORDING TO
CIRCUIT PATTERN

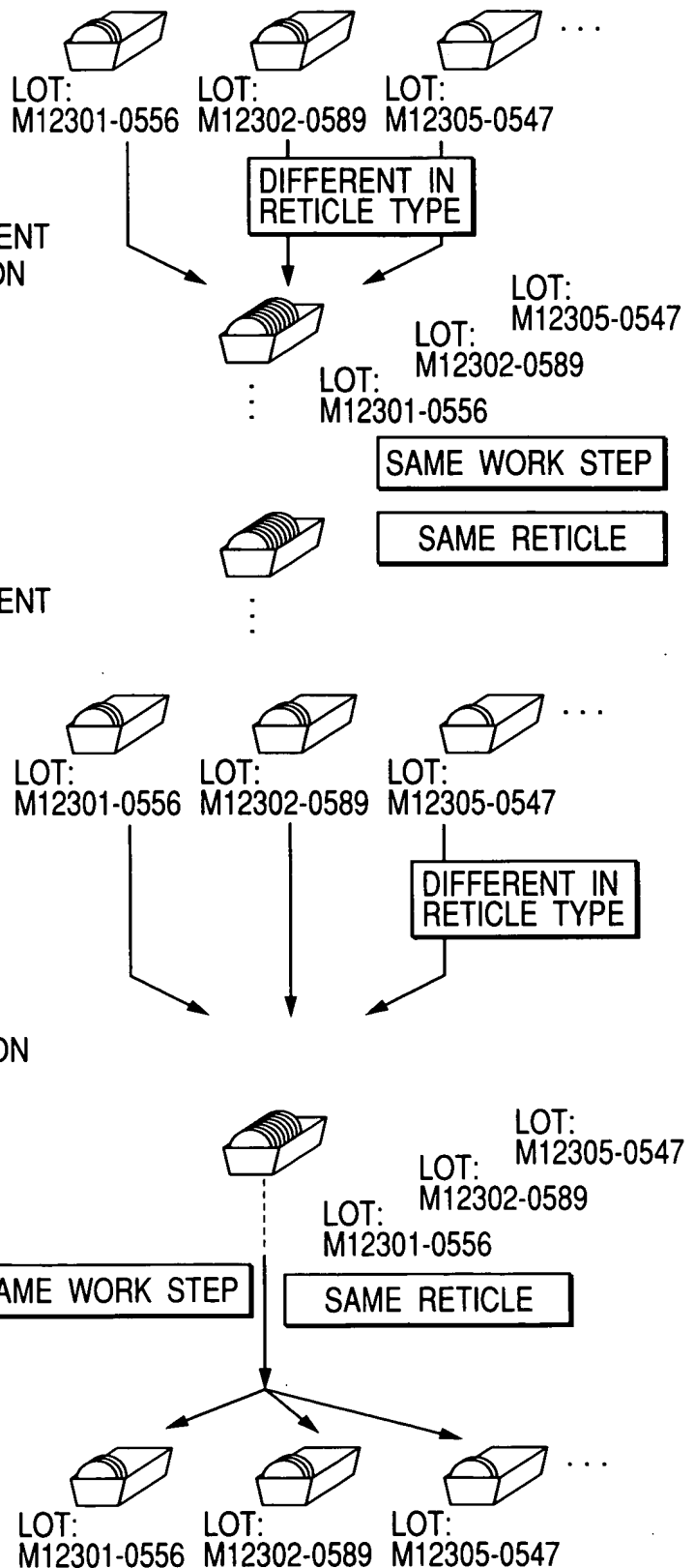
PHOTOLITHOGRAPHY
FITTING ACCURACY
MEASURING SEM
ETCHING
RESIST PEELING
MEASURING SEM
APPEARANCE INSPECTION

MIX-LOADING

WIRING PROCESS
...

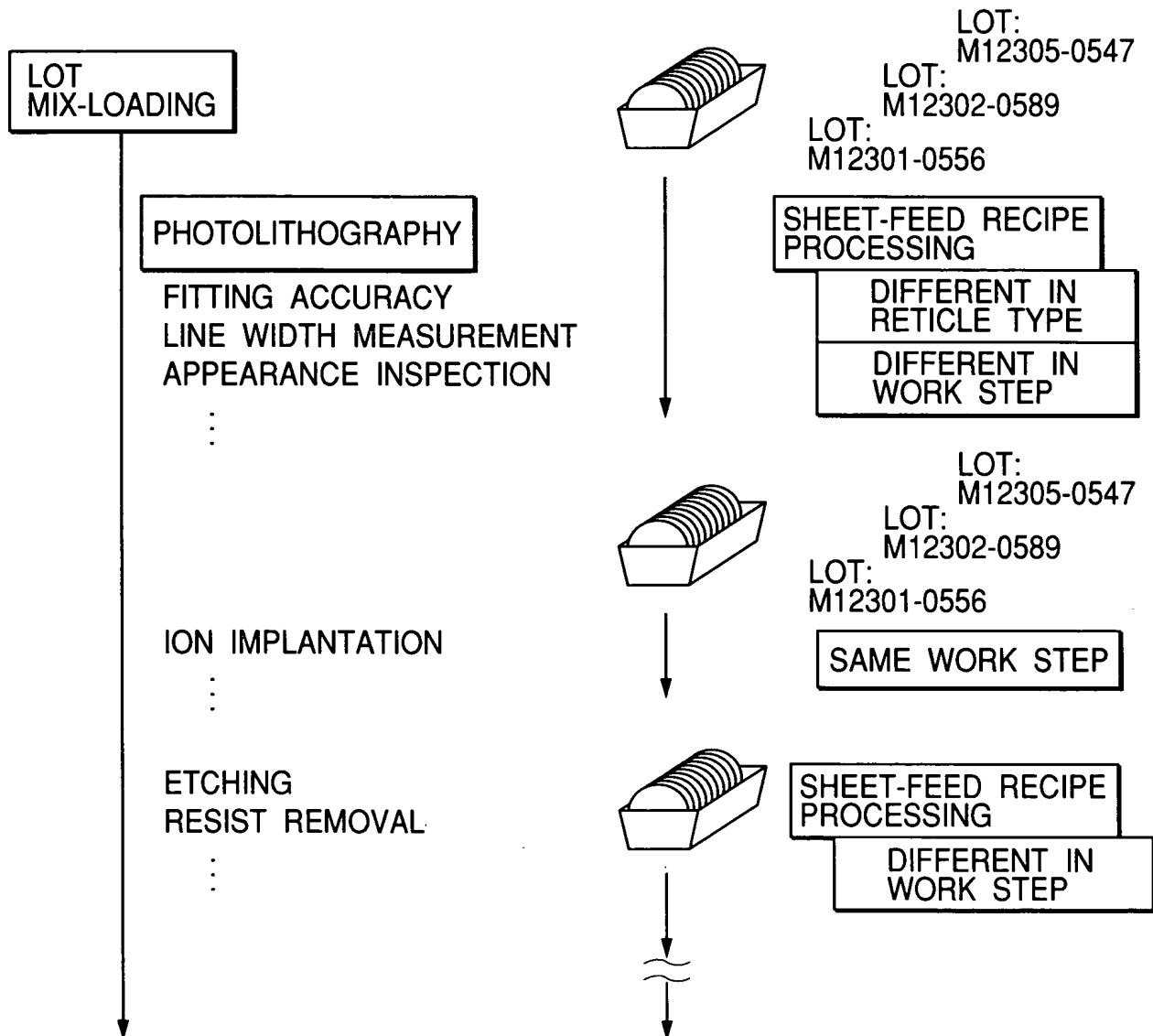
LOT SEPARATION
ACCORDING TO
PRODUCT NAME

ELECTRIC
CHARACTERISTICS
INSPECTION



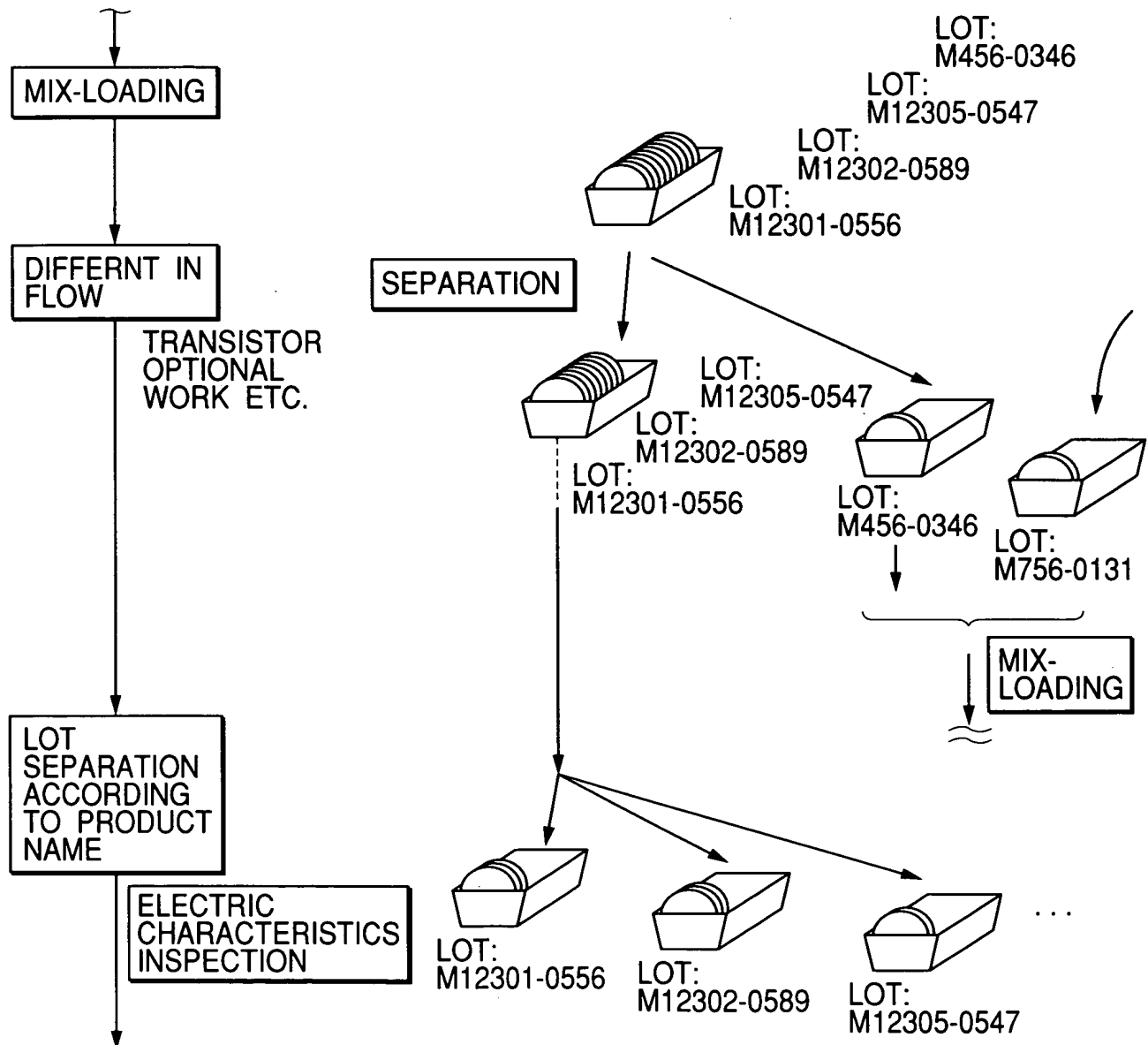
8 / 12

FIG. 13



9 / 12

FIG. 14



10 / 12

FIG. 15

NEW SYSTEM

CARRIER	LOT
S0123	MZ12301-0156
S0123	MZ12301-0154
S0123	MZ12303-0159
S0123	MZ12309-0140

OLD SYSTEM

CARRIER	LOT
S0123	MZ12301-0156
#0001	MZ12301-0154
#0002	MZ12303-0159
#0003	MZ12309-0140

VIRTUAL CARRIERS
USABLE IN SYSTEM



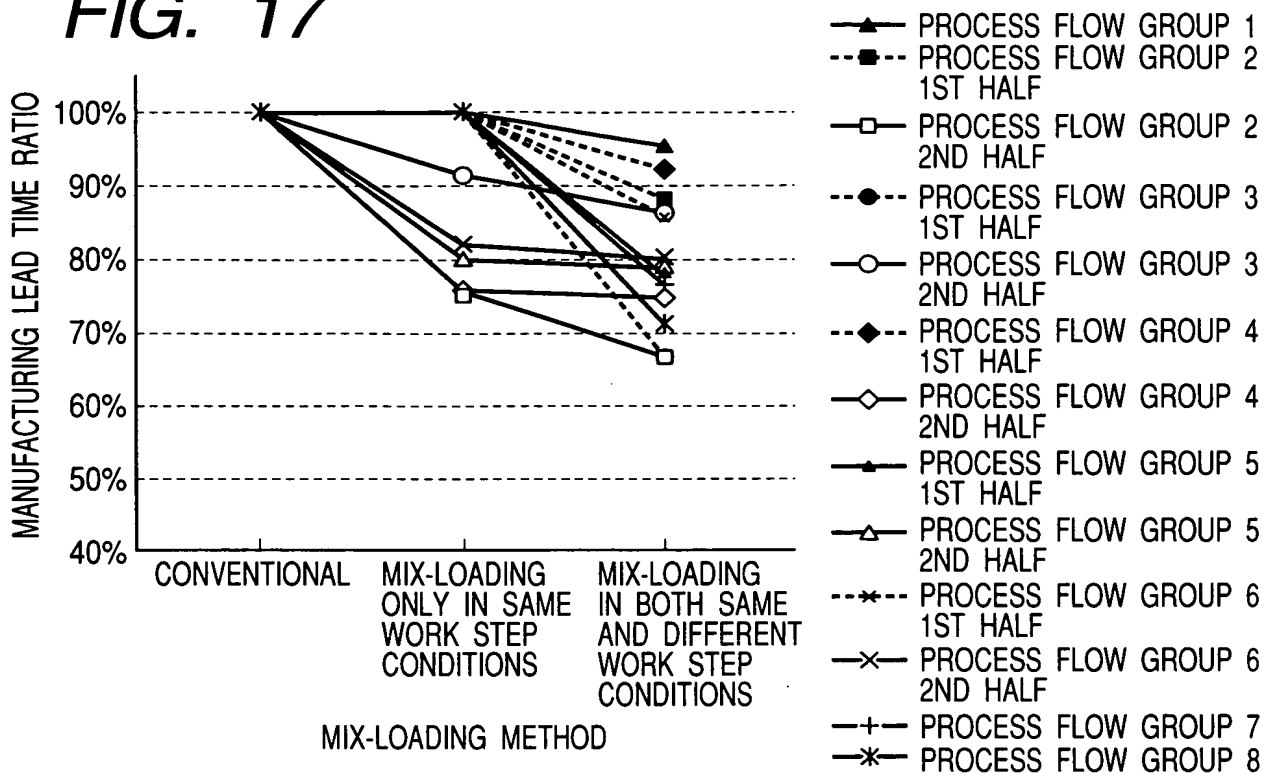
11 / 12

FIG. 16

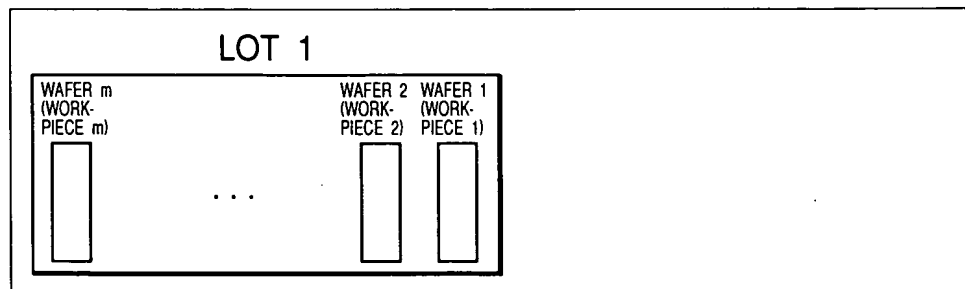
	CONVENTIONAL				MIX-LOADING ONLY IN SAME WORK STEP CONDITIONS				MIX-LOADING IN BOTH SAME AND DIFFERENT WORK STEP CONDITIONS			
	PRODUCTION WORKPIECE RATE	LOADED WORKPIECE NUMBER/CARRIER	WORKPIECE LOADING RATE		PRODUCTION WORKPIECE RATE	LOADED WORKPIECE NUMBER/CARRIER	WORKPIECE LOADING RATE		PRODUCTION WORKPIECE RATE	LOADED WORKPIECE NUMBER/CARRIER	WORKPIECE LOADING RATE	
PROCESS FLOW GROUP 1	2.5%	25.0	100.0%		2.5%	25.0	100.0%		2.5%	25.0	100.0%	
PROCESS FLOW GROUP 2 1ST HALF	6.3%	23.2	92.9%		6.3%	23.2	92.9%		6.3%	23.2	92.9%	
PROCESS FLOW GROUP 2 2ND HALF	6.2%	2.8	11.4%		6.2%	21.4	85.7%		6.2%	23.4	93.7%	
PROCESS FLOW GROUP 3 1ST HALF	14.3%	20.9	83.6%		14.3%	20.9	83.6%		14.3%	20.9	83.6%	
PROCESS FLOW GROUP 3 2ND HALF	13.1%	2.8	11.2%		13.1%	23.3	93.1%		13.1%	24.1	96.4%	
PROCESS FLOW GROUP 4 1ST HALF	18.6%	19.9	79.6%		18.6%	19.9	79.6%		18.6%	19.9	79.6%	
PROCESS FLOW GROUP 4 2ND HALF	13.0%	3.6	14.4%		13.0%	22.6	90.6%		13.0%	24.3	97.3%	
PROCESS FLOW GROUP 5 1ST HALF	2.4%	25.0	100.0%		2.4%	25.0	100.0%		2.4%	25.0	100.0%	
PROCESS FLOW GROUP 5 2ND HALF	5.3%	12.2	48.6%		5.3%	22.8	91.1%		5.3%	23.8	95.1%	
PROCESS FLOW GROUP 6 1ST HALF	5.6%	19.3	77.3%		5.6%	19.3	77.3%		5.6%	19.3	77.3%	
PROCESS FLOW GROUP 6 2ND HALF	2.2%	2.6	10.5%		2.2%	20.0	79.8%		2.2%	22.0	87.8%	
PROCESS FLOW GROUP 7	3.5%	24.5	98.1%		3.5%	24.5	98.1%		3.5%	24.5	98.1%	
PROCESS FLOW GROUP 8	7.1%	25.0	100.0%		7.1%	25.0	100.0%		7.1%	25.0	100.0%	
ENTIRETY	100.0%	6.9	27.5%		100.0%	21.9	87.6%		100.0%	22.4	89.6%	

12 / 12

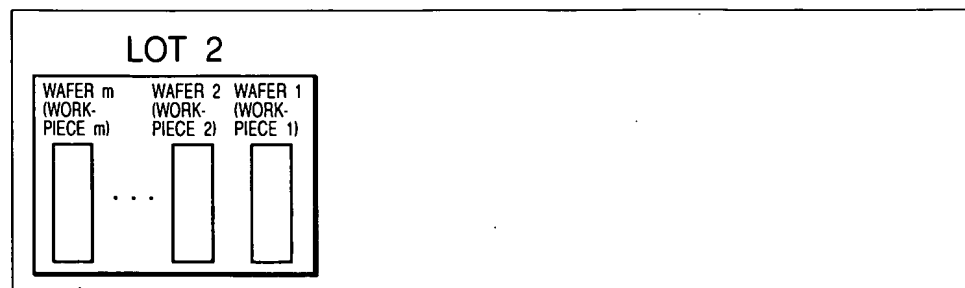
FIG. 17



**FIG. 18
 PRIOR ART**



CARRIER: 001 LOT 1



CARRIER: 002 LOT 2